

## **ABSTRACT**

A frame type for a current SBR frame is determined according to a type of end border of a previous frame, as well as presence of a transient in the current SBR frame. A start border is determined according to the end border of the previous SBR frame. For a FIXFIX frame, a low time-resolution setting is used. For a FIXVAR or a VARVAR frame, a search for intermediate borders is conducted in the region between the transient and maximum allowed end border location. The end border is also determined at this stage. If there is excess capacity for more borders, another search is conducted in the region between the transient and the start border. For a VARFIX frame, only one search needs to be conducted, in the whole region partitioned by a variable start border and a fixed end border. All of the above are accomplished with two Forward Search operations and one Backward Search operation. They employ the same principle, which is based on evaluating the signal variation of a time segment, but with minor variations to suit the scenarios in which they are applied.